

Form PTO-1449  
(Rev. 8-83)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
10059US09SERIAL NO.  
09/954,486

## INFORMATION DISCLOSURE CITATION

(Use several sheets, if necessary)

APPLICANT(s):  
Thorn et al.FILING DATE  
September 17, 2001GROUP ART UNIT:  
1741

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
IBP	A1	409,096	08/18/1889	Blank			
	A2	1,037,469	09/03/12	Goldberg			
	A3	2,176,879	10/24/39	Bartell	44	9	
	A4	2,243,429	05/27/41	Laux	204	30	
	A5	2,692,857	10/26/54	Michel et al	252	28	
	A6	2,833,736	05/06/58	Glaser	260	29.6	
	A7	2,872,391	02/03/59	Hauser et al.	204	15	
	A8	2,897,409	07/28/59	Gitto	317	101	
	A9	2,978,428	04/04/61	Aberegg	260	29.6	
	A10	2,983,220	05/09/61	Dalton et al.	101	149.2	
	A11	3,099,608	07/30/63	Radovsky et al.	204	15	
	A12	3,152,996	10/13/64	Forrester	252	313	
	A13	3,163,588	12/29/64	Shortt et al.	204	16	
	A14	3,249,559	05/03/66	Gallas	252	510	
	A15	3,495,962	02/17/70	Norton	65	26	
	A16	3,506,482	04/14/70	Hirohata et al.	117	212	
	A17	3,509,088	04/28/70	Dalton	260	41	
	A18	3,515,201	06/02/70	Zimmerman	164	66	
	A19	3,518,116	06/30/70	Stock et al.	117	226	
	A20	3,565,658	02/23/71	Frazier et al.	106	307	
	A21	3,578,577	05/11/71	Gilchrist	204	181	
	A22	3,639,121	02/01/72	York	96	1.5	
	A23	3,655,530	04/11/72	Taylor	204	26	
	A24	3,696,054	10/03/72	Saunders	252	511	
	A25	3,697,450	10/10/72	Takenaka et al.	252	511	
	A26	3,725,214	04/03/73	Bride	204	15	
	A27	3,764,280	10/09/73	Lupinski	29	195	
	A28	3,818,412	06/18/74	Deardurff	338	214	
	A29	3,852,131	12/03/74	Houston	156	3	

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APPLICANT(s):  
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1741MAIL DATE CANCELLED  
U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
IBP	A30	3,865,626	02/11/75	Diener et al.	<del>417</del>	<del>226</del>	
	A31	3,865,699	02/11/75	Luch	<del>204</del>	<del>20</del>	
	A32	3,870,987	03/11/75	Wiley et al.	<del>338</del>	<del>214</del>	
	A33	3,874,862	04/01/75	Bickling, Jr. et al.	<del>65</del>	<del>26</del>	
	A34	3,881,048	04/29/75	Bertrand	<del>428</del>	<del>447</del>	
	A35	3,963,498	06/15/76	Trevoy	<del>96</del>	<del>87 A</del>	
	A36	3,966,581	06/29/76	Holte	<del>204</del>	<del>202</del>	
	A37	3,983,042	09/28/76	Jain et al.	<del>252</del>	<del>18</del>	
	A38	3,991,397	11/09/76	King	<del>338</del>	<del>214</del>	
	A39	4,000,046	12/28/76	Weaver	<del>204</del>	<del>38R</del>	
	A40	4,035,265	07/12/77	Saunders	<del>252</del>	<del>510</del>	
	A41	4,090,984	05/23/78	Lin et al.	<del>252</del>	<del>511</del>	
	A42	4,104,178	08/01/78	Jain et al.	<del>252</del>	<del>30</del>	
	A43	4,105,513	08/08/78	Nishino et al.	<del>204</del>	<del>38A</del>	
	A44	4,187,334	02/05/80	LaBate	<del>427</del>	<del>236</del>	
	A45	4,205,974	06/03/80	Franz	<del>65</del>	<del>40</del>	
	A46	4,213,870	07/22/80	Loran	<del>252</del>	<del>51.5 R</del>	
	A47	4,239,794	12/16/80	Allard	<del>428</del>	<del>219</del>	
	A48	4,239,818	12/16/80	LaBate	<del>427</del>	<del>236</del>	
	A49	4,254,180	03/03/81	Kline	<del>428</del>	<del>323</del>	
	A50	4,278,511	07/14/81	Dugan	<del>204</del>	<del>15</del>	
	A51	4,316,831	02/23/82	LaBate	<del>260</del>	<del>29.6 S</del>	
	A52	4,321,295	03/23/82	Smith-Johannsen	<del>428</del>	<del>206</del>	
	A53	4,368,252	01/11/83	Kakuhashi et al.	<del>430</del>	<del>312</del>	
	A54	4,389,278	06/21/83	Kai	<del>156</del>	<del>630</del>	
	A55	4,401,579	08/30/83	Kratzer	<del>252</del>	<del>17</del>	
	A56	4,416,790	11/22/83	Schürmann et al.	<del>252</del>	<del>62</del>	
	A57	4,424,930	01/10/84	Wilhelmson	<del>228</del>	<del>20</del>	
	A58	4,425,380	01/10/84	Nuzzi et al.	<del>427</del>	<del>97</del>	

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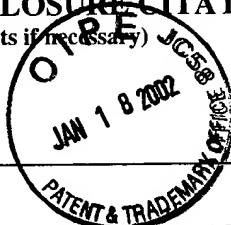
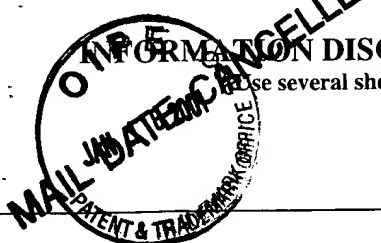
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Thorn et al.FILING DATE  
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
IBP	A59	4,430,166	02/07/84	Carter	204	15	
	A60	4,462,922	07/31/84	Boskamp	252	174.12	
	A61	4,465,565	08/14/84	Zanio	204	56 R	
	A62	4,478,368	10/00/84	Yie	239	430	
	A63	4,529,683	07/16/85	Bishop	430	215	
	A64	4,547,311	10/15/85	Sako et al.	252	511	
	A65	4,571,286	02/18/86	Penato	204	15	
	A66	4,581,301	04/08/86	Michaelson	428	551	
	A67	4,617,579	10/14/86	Sachdev et al	346	135.1	
	A68	4,619,741	10/28/86	Minten et al.	204	15	
	A69	4,619,871	10/28/86	Takami	428	607	
	A70	4,622,107	11/11/86	Piano	204	15	
	A71	4,622,108	11/11/86	Polakovic et al.	204	15	
	A72	4,629,537	12/16/86	Hsu	204	15	
	A73	4,631,117	12/23/86	Minten et al.	204	15	
	A74	4,634,619	01/06/87	Lindsay	427	97	
	A75	4,683,036	07/28/87	Morrissey et al.	204	15	
	A76	4,684,560	08/04/87	Minten et al.	428	131	
	A77	4,691,091	09/01/87	Lyons et al.	219	121 LM	
	A78	4,718,993	01/12/88	Cupta et al.	204	15	
	A79	4,724,005	02/09/88	Minten et al.	106	307	
	A80	4,735,676	04/05/88	Iwasa	156	630	
	A81	4,735,734	04/05/88	Staub et al.	252	29	
	A82	4,758,358	07/19/88	Lum et al.	252	22	
	A83	4,786,198	11/00/88	Zgambo	106	20 xr	
	A84	4,790,902	12/13/88	Wada et al.	156	630	
	A85	4,808,324	02/28/89	Periard et al.	252	23	
	A86	4,818,437	04/04/89	Wiley	252	511	
	A87	4,818,438	04/04/89	Wiley	252	511	

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EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
ISB	A88	4,820,344	04/11/89	Geke et al	106	14.13	
	A89	4,867,792	09/19/89	Ronlan	106	189	
	A90	4,874,477	10/00/89	Philip Pendleton			
	A91	4,879,015	11/07/89	Adamek et al.	204	224R	
	A92	4,889,750	12/26/89	Wiley	428	342	
	A93	4,897,164	01/30/90	Piano et al.	204	15	
	A94	4,911,796	03/27/90	Reed	204	15	
	A95	4,921,777	05/01/90	Fraenkel et al.	430	314	
	A96	4,935,109	06/19/90	Dugan	204	15	
	A97	4,964,948	10/23/90	Reed	156	659.1	
	A98	4,964,959	10/23/90	Nelson et al.	204	15	
	A99	4,969,979	11/13/90	Appelt et al.	204	15	
	A100	4,980,202	12/25/90	Brennan et al.	427	249	
	A101	4,994,153	02/19/91	Piano et al.	204	15	
	A102	5,015,339	05/14/91	Pendleton	204	15	
	A103	5,018,979	05/00/91	Gilano et al.	434	409	
	A104	5,024,735	06/18/91	Kadija	204	15	
	A105	5,030,367	07/09/91	Tanaka et al.	252	22	
	A106	5,032,235	07/16/91	Downing et al.	204	15	
	A107	5,041,242	08/20/91	Fowle et al.	252	511	
	A108	5,057,245	10/15/91	Frentzel et al.	252	511	
	A109	5,106,537	04/21/92	Nelsen et al.	252	502	
	A110	5,108,553	04/28/92	Foster et al.	205	125	
	A111	5,110,355	05/05/92	Penleton	106	1.11	
	A112	5,139,642	08/18/92	Randolph et al.	205	125	
	A113	5,160,375	11/00/92	Otaki	252	506xr	
	A114	5,234,627	08/10/93	Damschroder	252	502	
	A115	5,262,041	11/16/93	Gulla	205	125	
	A116	5,277,787	01/11/94	Otani et al.	205	125	

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## U.S. PATENT DOCUMENTS

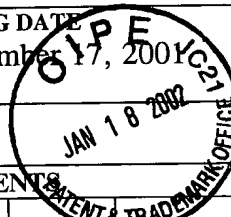
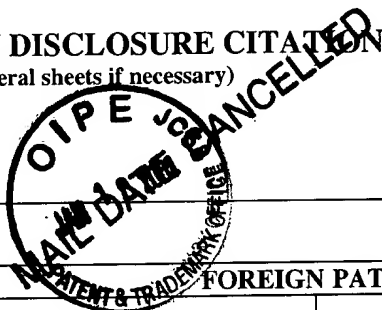
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
IRP	A117	5,389,270	02/14/95	Thorn et al.	252	22
	A118	5,391,421	02/21/95	Gulla	428	209
	A119	5,468,597	11/21/95	Calabrese et al.	430	315
	A120	5,476,580	12/19/95	Thron et al.	205	122
	A121	5,484,518	01/00/96	Goldberg	205	166
	A122	5,494,610	02/00/96	Lovell	252	511
	A123	5,498,372	03/00/96	Hedges	252	511
	A124	5,500,106	03/19/96	Goldberg	205	166
	A125	5,536,386	07/16/96	Ferrier et al.	205	125
	A126	5,547,558	08/00/96	Sakamoto et al.	205	125
	A127	5,549,849	08/00/96	Namura et al.	252	503
	A128	5,622,652	04/00/97	Kucherovsky et al.	252	511
	A129	5,690,805	11/25/97	Thorn et al.	205	118
	A130	2,926,116	02/23/60	Keim	162	164
	A131	2,926,154	02/23/60	Keim	206	29.2
	A132	3,049,469	08/14/62	Davison	162	164
	A133	3,224,986	12/21/65	Butler, et al.	260	9
	A134	3,332,834	07/25/67	Reynolds, Jr.	162	164
	A135	3,592,731	07/13/71	Griggs	162	164
	A136	3,658,873	10/16/62	Kelm, et al.	162	164
	A137	3,763,060	10/02/72	Hamerstrand, et al.	260	9
	A138	3,917,894	11/04/75	Coleman	428	414
	A139	3,962,159	06/08/76	Ray-Chaudhuri et al.	260	17.4
	A140	4,152,199	05/01/79	Hamerstrand et al.	162	164-R
	A141	4,037,017	07/19/77	Maslanka	428	413
	A142	5,725,807	03/10/98	Thorn et al.	252	510
	A143	3,058,873	10/16/62	Keim	162	164
	A144	4,442,139	04/10/84	Brigham	427	122

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## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NO.	PUBLICATION DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
IBP	B1	✓ 2,102,240	10/23/92	Canada				
	B2	✓ 182408	03/15/80	Czechoslovakia				X
	B3	✓ 0 752 807 A1	01/08/97	EP				
	B4	✓ 0 759 482 A1	02/26/97	EP				
	B5	✓ 0 381 761 A1	08/16/90	EP				
	B6	✓ 0 085 413 A2	08/10/83	EP				
	B7	✓ 60-110893	11/17/83	Japan				
	B8	✓ WO 92/19092	10/29/92	PCT				
	B9	✓ 1,136,977	12/18/68	United Kingdom				
	B10	✓ 1,176,597	01/07/70	United Kingdom				
	B11	✓ 1,506,464	04/05/78	United Kingdom				
	B12	✓ 2,177,707 A	01/28/87	United Kingdom				
	B13	✓ 674981	07/25/79	USSR			Abstract Only	
	B14	✓ 745964	07/21/80	USSR			Abstract Only	
	B15	✓ 943333	07/15/82	USSR			Abstract Only	
	B16	✓ 768793	11/10/80	USSR			Abstract Only	
	B17	✓ 571435	09/05/77	USSR			Abstract Only	

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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

IBP	C1	✓	Acheson - Product Data Sheet "Dag 137 Graphite Lubricating Coating," Acheson Colloids Company, Port Huron, Michigan 48060, 2 pages.
	C2	✓	Acheson - Product Data Sheet "Electrodag® 230 Conductive Impregnant," Acheson Colloids Company, Port Huron, Michigan 48060, 2 pages
	C3	✓	Acheson - "Electrodag® Coatings Selection Guide," Acheson Colloids Company, P.O. Box 611747, Port Huron, Michigan 48061-1747
	C4	✓	Acheson - Product Data Sheet "Aquadag,"
	C5	✓	Aqualon, CMC AQUALON Cellulose Gum Sodium Carboxymethylcellulose, Physical and Chemical Properties, 5 pages

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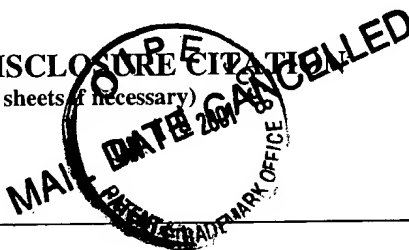
Thorn et al JAN 18 2002

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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

C6	✓	Aqualon, KLUCEL Hydroxypropylcellulose, Physical and Chemical Properties, 28 pages
C7	✓	Aqualon, NATROSOL Hydroxyethylcellulose A Nonionic Water-Soluble Polymer Physical and Chemical Properties, Aqualon pp. 1-5
C8	✓	Aqualon, Technical Information "Freezer Gel Preparation With Aqualon™ CMC," Bulletin VC-521 (Supersedes VC-405D), Aqualon Company, 1313 North Market Street, Wilmington, Delaware 19894, 2 pages
C9	✓	Aquaness Chemical Technical Information, "ARKLEAR 155" 1 page
C10	✓	Aquaness Chemical Technical Information, "ARKLEAR 1055" 1 page
C11	✓	Asakawa, <i>et al.</i> , "Adsorption of Phenol on Surface-modified Carbon Black from its Aqueous Solution. II. Influence of Surface-Chemical Structure of Carbon on Adsorption of Phenol," <i>Bull. Chem. Soc. Jpn.</i> 58:2009-2014 (1985)
C12	✓	Bernhardt, "Preparation of Suspensions for Particle Size Analysis Methodical Recommendations, Liquids and Dispersing Agents," <i>Advances in Colloid and Interface Science</i> , 29:79-139 (1988)
C13	✓	Bose, <i>et al.</i> , "Preparation, Voltammetric Characterization, and Use of a Composite Containing Chemically Synthesized Polypyrrole and a Carrier Polymer," <i>J. Electrochem. Soc.</i> , 139(9):L75-L76 (September 1992)
C14	✓	Brédas, "Electronic Structure of Highly Conducting Polymers," <i>Facultés Universitaires Notre-Dame de la Paix, Namur, Belgium</i> , 25:859-912
C15	✓	Chaurasia, <i>et al.</i> , "Thermal Conductivity of Suspension and Emulsion Materials," <i>J. Appl. Chem. Biotechnol.</i> , 25(12): 881-890 (1975)
C16	✓	Comello, "R&D Semiconductor Research, Conducting Polymers Finding Niche Uses," <i>R&amp;D Magazine</i> , pp. 63-64 (July 1993)
C17	✓	Dagani, "Organic Metals: New polymers are most metallic yet," <i>News of the Week, C&amp;EN</i> , pp. 8-9 (August 31, 1992)
C18	✓	Daxad, High Activity Dispersants, Technical Data CP-2, Organic Chemicals Division, W.R. Grace & Co., Lexington, Mass. 02173, 1 page
C19	✓	Dean, Lange's Handbook of Chemistry, McGraw-Hill, Inc., 14 <sup>th</sup> ed., pp. 8.103-8.107 (Month of publication is unknown.)
C20	✓	Dow Chemical Company, METHOCEL Cellulose Ethers, Binders and processing aids for ceramics, 4 pages.
C21	✓	Dow Chemical Co., Selecting the Best VERSENE Chelating Agent, (undated)

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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

- 100 JAN 23 2002  
100 1/20
- C22 ✓ Dovgyalo, *et al.*, "Electric mass transfer of dispersed conducting carbon black-polyethylene compositions during electrostatic fluidized-bed deposition," *Inzh.-Fiz. Zh.* 57(4):639-44 (1989) Abstract No. C A112(16):141269 (Abstract Only)
- C23 ✓ Encyclopedia of Science and Engineering, Cellular Materials to Composites, John Wiley & Sons, Vol. 3, pp. 235-243. (Month not known.)
- C24 ✓ Exxon Chemical, Callaway 6818, 2 pages (May 30, 1991)
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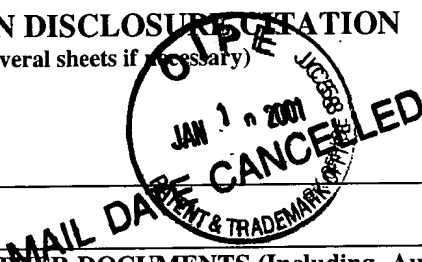
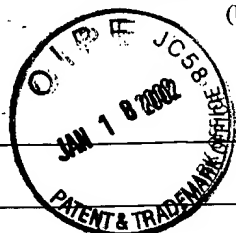
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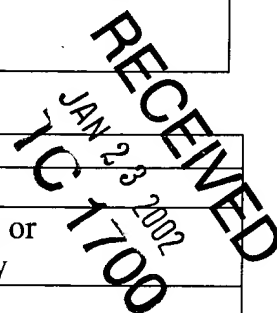
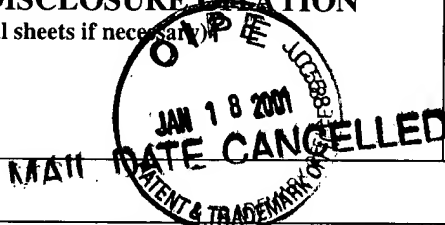
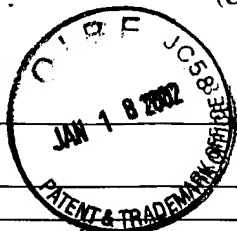
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